



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,489	10/13/2005	Janne Parantainen	915-001.56	6492

4955 7590 08/19/2008  
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP  
BRADFORD GREEN, BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER
----------

ELPENORD, CANDAL

ART UNIT	PAPER NUMBER
----------	--------------

2616

MAIL DATE	DELIVERY MODE
-----------	---------------

08/19/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/531,489

**Applicant(s)**

PARANTAINEN, JANNE

**Examiner**

CANDAL ELPENORD

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 May 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 15 April 2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.
2. Claims 1-17 have been amended and claims 18-40 have been added.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 29-31** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Regarding claim 29**, the phrase "said multicast/broadcast service" has no antecedent basis.

Claims 30-31 are rejected since they depend on claim 29.

Regarding claim 32, the claim refers to a method claim but claim dependency refers back to the apparatus claim 29.

Similar problem exists in claim 33.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 1-2,5-7, 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Basilier et al (US 7,061,880 B2) in view of Casati et al (US 2003/0039232 A1) and further view of Ravishankar et al (US 2003/0060210 A1).

**Regarding claim 1**, Basilier '880 discloses method (see "method and system for establishing multicast services", col. 1, lines 59-61) comprising, defining a packet flow identifier associated to at least one multicast/broadcast multimedia service (see, "unique reference identifiers to identify a unique multicast flow", col. 2, lines 15-40) MBMS or a group of terminals (fig. 1, Mobile Stations 140, 155, col. 6, lines 6-9, see Mobile Stations requesting to join a multicast group, col. 6, lines 50-60), creating a packet flow context for said multicast/broadcast multimedia service MBMS or group of terminals identified by said packet flow identifier (see, "generating of multicast service flow associated with a flow code", col.7, lines 14-26, lines 30-39), transferring service data (see, transmission of the packet traffic over the interface to the mobile from the packet data serving nodes, col. 49-67) by utilizing the packet flow context for routing the

service data of the multicast/broadcast multimedia service(see. "transmitted of the multicast flow to the mobile station, col. 7, lines 40-63) from a first network entity (fig. 1 in combination with fig. 2, Packet Data Serving Nodes 1, 2, col. 8, lines 49-64) to a second network entity (fig. 1 in combination with fig. 2., BS/PCF1 and BS/PCF2, col. 8, lines 49-64).

**Regarding claim 2**, Bassilier '880 discloses the method, further comprising mapping the packet flow context to an appropriate logical channel (see, radio channel parameters mappings to the mobile station on whom multicast flow are broadcasted, col. 7, lines 61 to col. 8, lines 10) indicated by a service announcement of the multicast/broadcast multimedia service MBMS (see, "service announce indicating that multicast service is active", col. 9, lines 40-54).

**Regarding claim 5**, Basilier '880 discloses the method, wherein terminals (fig. 1 in combination with fig. 2, see "multicast flow information based on request by one or more mobile stations to join a multicast group", col. 7, lines 5-25) in said group of terminals (fig. 1, Mobile Stations 140, 155) belong to a same multicast group (see "multicast flow information based on request by one or more mobile stations to join a multicast group", col. 7, lines 5-25).

**Regarding claim 6**, Basilier '880 discloses the method, wherein terminals in said group of terminals receive data from at least one common source (fig. 1, Content Server

1 providing multicast services to one or more mobile stations, packet data serving nodes, col. 3, lines 15-25, col. 5, lines 50-62, col. 6, lines 19-34).

**Regarding claim 9**, Basilier '880 discloses the method, wherein transferred data of the multicast/broadcast multimedia service MBMS is identified by said second network entity (130) on the basis of said packet flow identifier (Noted: radio parameters used by the Base Station/Packet control Function to inform the mobile station of the a flow and where to find the IP multicast flow, col. 7, lines 61 to col. 8, lines 10).

Basilier '880 discloses all the claimed limitation with the exception of claimed features: **Regarding claim 1**, Gb interface (which is a 3GPP standard), creating PDP context for packet flow identifier.

**Regarding claim 7**, the method, wherein said creation of the packet flow context comprises transmitting a packet flow context PFC request to a network entity performing said creation.

However, Ravishankar '210 from the same field of endeavor discloses the above claimed features:

**Regarding claim 1**, Gb interface (fig. 1 in combination with fig. 2a and fig. 2b, see Gb interface, paragraphs 0022-0026-which is a 3GPP standard), creating PDP context (fig. 3, See, creation of PDP context in response to an Activation PDP Context Request based on negotiated block flows, paragraphs 0029-0030, 0035) for packet flow identifier (see, establishing of temporary block flows based on negotiated QoS parameters , paragraph 0029-0030, fig. 3c, see PDP context for real-time and non-real-

time traffic, paragraph 0037, 0041, (see, "temporary Flow Identifiers", paragraph 0047, see, "scheduling of packets for transmission over the air interface", paragraph 0031, lines 2-14).

**Regarding claim 7**, the method, wherein said creation of the packet flow context comprises transmitting a packet flow context PFC request to a network entity (fig. 3a, GGSN node creating the PDP Context Response) performing said creation (fig. 3, See, creation of PDP context in response to an Activation PDP Context Request based on negotiated block flows, paragraphs 0029-0030, 0035).

In view of the above, having and the method and system for providing multicast services using identifiers and radio parameters of Basilier '880, the method and system for providing communication services based on QoS of Ravishankar '210, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features Basilier '880 by using features as taught by Ravishankar '210 in order to provide differential services based on QoS parameters assigned to the sessions as suggested in paragraph 0007 for motivation.

8. **Claims 10, 16-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravishankar et al (US 2003/0060210) in view of Basilier et al (US 7,061,880 B2).

**Regarding claim 10**, Ravishankar '210 discloses a system (fig. 1, Communication System for providing services, paragraph 0022) comprising a Gb interface (fig. 1 in combination with fig. 2a and fig. 2b, see Gb interface, paragraphs

0022-0026) between a first network entity (fig. 1 in combination with fig. 2a and fig. 2b, see SGSN node 110) and a second network entity (fig. 1 in combination with fig. 2a and fig. 2b, see BSS 108), said first network entity (fig. 1 in combination with fig. 2a and fig. 2b, see SGSN node 110) and said second network entity (fig. 1 in combination with fig. 2a and fig. 2b, see BSS 108) are arranged to negotiate (see, establishing of temporary block flows based on negotiated QoS parameters , paragraph 0029-0030, fig. 3c, see PDP context for real-time and non-real-time traffic, paragraph 0037, 0041) a common packet flow identifier (see, "temporary Flow Identifiers", paragraph 0047) for said multicast/broadcast multimedia service (see, establishing of temporary block flows based on negotiated QoS parameters , paragraph 0029-0030, fig. 3c, see PDP context for real-time and non-real-time traffic, paragraph 0037, 0041) or a group of terminals (fig. 1, Terminal Equipment 122, 124 (MT 102)) and said second network entity is arranged to create a packet flow context (fig. 3, See, creation of PDP context in response to an Activation PDP Context Request based on negotiated block flows, paragraphs 0029-0030, 0035) for said multicast/broadcast multimedia service (see, establishing of temporary block flows based on negotiated QoS parameters , paragraph 0029-0030, fig. 3c, see PDP context for real-time and non-real-time traffic, paragraph 0037, 0041) or group of terminals ((fig. 1, Terminal Equipment 122, 124 (MT 102)) for routing service data of the multicast/broadcast multimedia service over the Gb interface (see, "scheduling of packets for transmission over the air interface", paragraph 0031, lines 2-14).



Ravishankar '210 discloses all the claimed limitation with the exception of being silent with respect to claimed features: **Regarding claim 10**, packet flow identifier for multicast service.

**Regarding claim 16**, wherein the terminals in the group belong to a same multicast group.

However, Basilier '880 from the same field of endeavor discloses the above claimed features:

**Regarding claim 10**, packet flow identifier for multicast service (see, "unique reference identifiers to identify a unique multicast flow", col. 2, lines 15-40, see, "generating of multicast service flow associated with a flow code", col.7, lines 14-26, lines 30-39).

**Regarding claim 16**, wherein the terminals (fig. 1, Mobile Stations 140, 155) in the group belong to a same multicast group (see "multicast flow information based on request by one or more mobile stations to join a multicast group", col. 7, lines 5-25).

In view of the above, having the method and system for providing communication services based on QoS of Ravishankar '210 and the method and system for providing multicast services using identifiers and radio parameters of Basilier '880, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Ravishankar '210 by using features as taught by Basilier '880 in order to provide mapping of multicast flow based on flow code identifiers as suggested in col. 2, lines 26-47 for motivation.

9. **Claims 3-4, 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Basilier et al (US 7,061,880 B2) in view of Ravishankar et al (US 2003/0060210 A1) as applied to claim 1 above, and further in view of Ericksson et al (US 2002/0114279 A1).

Basilier '880 and Ravishankar '210 disclose all the claimed limitation with the exception of the claimed features: **regarding claim 3**, performing by the first network entity flow control of the service data of the multicast/broadcast multimedia service on packet flow context and base station system general packet radio service protocol virtual connection levels.

**Regarding claim 4**, wherein said flow control is additionally performed on a level located between said packet flow context and base station system general packet radio service protocol virtual connection levels, said level comprising at least one block whereto at least one packet flow context is logically connected.

**Regarding claim 8**, wherein at least part of plural flow control parameters are received from a Base Station Subsystem (BSS) or Gateway GPRS Support Node (GGSN).

Ericksson '279 from the same field of endeavor discloses the above claimed features: **regarding claim 3**, performing by the first network entity (fig. 3, SGSN, paragraph 0022, lines 1-3) flow control of the service data ("control of data flows", recited in paragraph 0019, lines 1-10) of the multicast/broadcast multimedia service on packet flow context and base station system general packet radio service protocol

virtual connection levels (fig. 3, Flow Control Per BVC, recited in paragraph 0022, lines 1-12).

**Regarding claim 4**, wherein said flow control is additionally performed on a level (fig. 3, Flow Control per MS, recited in paragraph 0015, lines 1-7) located between said packet flow context (fig. 3, PFC Flow Control) and base station system general packet radio service protocol virtual connection levels (fig. 3, BVC Flow Control, see BSS control of the data flow, paragraph 0015),, said level comprising at least one block (fig. 1, MS Flow block connecting to PFC block) where to at least one packet flow context is logically connected (fig. 1, MS Flow block connecting to PFC block).

**Regarding claim 8**, wherein at least part of plural flow control parameters are received from a Base Station Subsystem (see, BSS control of data flow, paragraphs 0019, 0022, fig. 3, Flow Control per BVC to SGSN node from the BSS).

In view of the above, having the systems and method for multicast communications of Bassilier '880, the method and system for providing communication services based on QoS of Ravishankar '210, and the method for controlling data flow per BVC of Ericksson '279, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Bassilier '880 with Ravishankar '210 by incorporating the teaching features of Ericksson '279 in order to provide flow control per packet flow context in GPRS network as suggested in paragraph 0014 for motivation.

10. **Claims 10, 16**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Casati et al (US 2003/0039232 A1) in view of Alakoski et al (US 2004/0073928 A1).

**Regarding claim 10**, Casati '232 discloses a system (fig.1, GPRS network with a multicast server, paragraphs 0024-0025) comprising a Gb interface (fig. 1, Gb interface connecting the SGSN node to the base station subsystem which is used for signaling and data transfer, paragraphs 0016, 0024-0026, see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038) between a first network entity (fig. 1, SGSN) and a second network entity (fig. 1, BSS).

**Regarding claim 16**, the system (fig. GPRS network with a multicast server, paragraphs 0024-0025), wherein the terminals in the group belong to a same multicast group (see, "method for sending a multicast to a plurality of mobile stations" as referenced by fig. 1, paragraph 0004).

Casati '232 discloses all the claimed limitations with the exception of being silent with respect to claimed features: **regarding claim 10**, said first network entity and said second network entity are arranged to negotiate a common packet flow identifier for said multicast/broadcast multimedia service MBMS or a group of terminals and said second network entity is arranged to create a packet flow context (PFC) for said multicast/broadcast multimedia service MBMS or group of terminals for routing service data of the multicast/broadcast multimedia service over the Gb interface.

Alakoski '928 from the same field of endeavor discloses the above claimed features: **regarding claim 10**, said first network entity (fig. 3, see "service/MBMS activation request from the user equipment to the SGSN", paragraph 0041, lines 1-12) and said second network entity (fig. 3 in combination with fig. 4, MBMS service management function, paragraph 0043) are arranged to negotiate (see, join MBMS request in which the SGSN requesting a multicast service for a mobile device, paragraph 0042) a common packet flow identifier for said multicast/broadcast multimedia service MBMS ("service attributes for each stream, target QoS and packet filter", paragraph 0043, "broadcast service attribute", paragraph 0010, lines 3-10) or a group of terminals and said second network entity is arranged to create a packet flow context for said multicast/broadcast multimedia service MBMS or group of terminals (see, creation of MBMS contexts based on the target QoS, packet filter, paragraph 0043) for routing service data of the multicast/broadcast multimedia service over the Gb interface (see, transmission of packet of an application service flow over Gi interface, paragraph 0038, lines 13-17, paragraph 0042).

In view of the above, having the method of sending a multicast message using PDP context of Casati '232, and the method and system for providing multicast/broadcast services based on Alakoski '928, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Casati '232 by incorporating the teaching features of Alakoski '928 in order to provide multicast/broadcast services based on QoS associated with application service as suggested in paragraph 0011 for motivation.

11. **Claims 17-21, 34-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Alakoski et al (US 2004/0073928 A1) in view of Casati et al (US 2003/0039232 A1).

**Regarding claims 17, 34,** Alakoski '928 discloses an apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009) configured to define a packet flow identifier associated to at least one multicast/broadcast multimedia service MBMS service or a group of terminals ("service attributes for each stream, target QoS and packet filter", paragraph 0043, "broadcast service attribute", paragraph 0010, lines 3-10, see, information identifying a MBMS service associated with the context, paragraph 0012, lines 2-7, fig. 3, UE 50, SGSN 54 and GGSN 56), send a message (fig. 3, see Activation MBMS Context Request, paragraph 0041, lines 1-12) including the packet flow identifier to create a packet flow context (fig. 3, see Activation MBMS Context Request, paragraph 0041, lines 1-12) for said multicast/broadcast multimedia service MBMS service (see, creation of MBMS contexts based on the target QoS, packet filter, paragraphs 0042-0043) or group of terminals identified by said packet flow identifier (see, "the use equipment /mobile station requesting an MBMS session", paragraph 0032), transfer service data of the multicast/broadcast multimedia service MBMS wherein the packet flow context is utilizable for routing the service data of the multicast/broadcast multimedia service over the Gb interface (see, "sending the packet of an application flow over an interface", paragraph 0040, lines 1-20).

**Regarding claims 18, 35,** Alakoski '928 discloses the apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009), further configured to perform flow control of said service data of said multicast/broadcast multimedia service at least on packet flow context (see, "for QoS control of a PDP context, an indication of the maximum allowable QoS for the PDP context", paragraphs 0029, 0030, lines 2-5) and base station system general packet radio service protocol virtual connection levels prior to transmission (fig. 2, MBMS-SC service center communicating the information with respect to the service area for each stream, target QoS, and packet filter, paragraphs 0031, see, transmission of packet based on the QoS, over any interface, paragraph 0040, lines 2-20).

**Regarding claims 19, 36,** Alakoski '928 discloses the apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009), wherein said flow control further comprises a level located between said packet flow context and base station system general packet radio service protocol virtual connection levels (fig. 2, MBMS-SC service center communicating the information with respect to the service area for each stream, target QoS, and packet filter, paragraphs 0031, see, transmission of packet based on the QoS, over any interface, paragraph 0040, lines 2-20), said level comprising at least one block where to at least one packet flow context is logically connected (fig. 3, GGSN node, see MBMS context creation).

**Regarding claims 20, 37,** Alakoski '928 discloses the apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009), wherein said

message to create a packet flow context (fig. 3, see Activation MBMS Context Request, paragraph 0041, lines 1-12) is sent from a first network entity substantially comprising a serving general packet radio service support node (fig. 3, SGSN 54 sending activation request for a mobile station, paragraph 0041, lines 1-12) and is sent to a second network entity (fig. 3, MBMS service center 60) substantially comprising a global system for mobile/enhanced data rates for global evolution radio access network(fig. 3, RAN/Radio Access Network, paragraph 0041, lines 1-12).

**Regarding claims 39, 40**, Alakoski '928 discloses the apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009), further configured to receive an acknowledgement message in response to sending said message to create a packet flow context (see, start notification message in the form of an Ack, paragraph 0048).

Alakoski '928 discloses all the claimed limitations with the exception of being silent with respect to claimed features: **regarding claims 17, 34**, Gb interface.

**Regarding claims 18, 35**, Gb interface.

**Regarding claims 21, 38**, wherein said Gb interface comprises an interface between said apparatus comprising a second-generation packet switched core network and a radio access network providing radio access for said group of terminals.



However, Casati '232 from the same field of endeavor discloses the above claimed features: **regarding claims 17, 34**, Gb interface (fig. 1, Gb interface connecting the SGSN node to the base station subsystem which is used for signaling and data transfer, paragraphs 0016, 0024-0026, see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038).

**Regarding claims 18, 35**, Gb interface (fig. 1, Gb interface connecting the SGSN node to the base station subsystem which is used for signaling and data transfer, paragraphs 0016, 0024-0026, see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038).

**Regarding claims 21, 38**, wherein said Gb interface (fig. 1, Gb interface connecting the SGSN node to the base station subsystem which is used for signaling and data transfer, paragraphs 0016, 0024-0026, see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038) comprises an interface (fig. 1, see lu interface connecting the SGSN node to the Radio Access network, paragraphs 0025-0027) between said apparatus comprising a second-generation packet switched core network (fig. 1, 2G GPRS network, paragraphs 0024-0027) and a radio access network (fig. 1, UTRAN) providing radio access for said group of terminals (fig. 1, Terminal Equipments/Mobile Terminals).

In view of the above, having the method and system for providing multicast/broadcast services of Alakoski '928 and the method of sending a multicast message using PDP context of Casati '232, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of

Alakoski '928 by incorporating the teaching features of Casati '232 in order to provide establishment of multicast /broadcast services to a plurality of mobile stations over the Gb interface as suggested in paragraph 0004 for motivation.

12. **Claims 22-26, 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Alakoski et al (US 2004/0073928 A1) in view of Casati et al (US 2003/0039232 A1).

**Regarding claim 22**, Alakoski '928 discloses a method/ apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009) comprising creating a packet flow context for a multicast/broadcast multimedia service (see, creation of MBMS contexts based on the target QoS, packet filter, paragraphs 0042-0043) or group of terminals identified by said packet flow identifier ("service attributes for each stream, target QoS and packet filter", paragraph 0043, "broadcast service attribute", paragraph 0010, lines 3-10, see, information identifying a MBMS service associated with the context, paragraph 0012, lines 2-7), mapping the packet flow context to an appropriate logical channel indicated by a service announcement of the multicast/broadcast multimedia service (see, response to a join request indicating the service area, target QoS for each stream, paragraph 0044), and receiving service data of the multicast/broadcast multimedia service for routing the service data of the multicast/broadcast multimedia service (see, "sending the packet of an application flow over an interface", paragraph 0040, lines 1-20) from a first network entity (fig. 3, SGSN

54 sending activation request for a mobile station, paragraph 0041, lines 1-12) to a second network entity (fig. 3, MBMS service center 60).

**Regarding claim 29**, Alakoski '928 discloses apparatus (fig. 1, System for providing broadcast/multicast services, paragraph 0036, 0009) configured to create a packet flow context for said multicast/broadcast multimedia service (see, creation of MBMS contexts based on the target QoS, packet filter, paragraphs 0042-0043) or group of terminals identified by a packet flow identifier paragraphs 0042-0043) or group of terminals identified by said packet flow identifier ("service attributes for each stream, target QoS and packet filter", paragraph 0043, "broadcast service attribute", paragraph 0010, lines 3-10, see, information identifying a MBMS service associated with the context, paragraph 0012, lines 2-7, map the packet flow context to an appropriate logical channel indicated by a service announcement of the multicast/broadcast multimedia service (see, response to a join request indicating the service area, target QoS for each stream, paragraph 0044), and receive service data of the multicast/broadcast multimedia service for routing the service data of said multicast/broadcast multimedia (see, "sending the packet of an application flow over an interface", paragraph 0040, lines 1-20).

**Regarding claims 23, 30**, Alakoski '928 discloses the method, further comprising delivering the service data of the multicast/broadcast multimedia service through an air interface to the terminals (see, transmission of the data packet of an application service flow over an air interface, paragraph 0040, lines 2-20, fig. 3, SGSG,

Art Unit: 2616

and GGSN nodes).

**Regarding claim 25**, Alakoski '928 discloses the method, wherein terminals in said group of terminals (fig. 2, SGSN and GGSN node receiving MBMS service, paragraph 0040, lines 1-20) receive data from at least one common source (fig. 2, MBMS service 30, paragraph 0039).

**Regarding claim 26, 31**, Alakoski '928 discloses the method wherein said creation of the packet flow context comprises receiving a packet flow context request including the packet flow identifier (fig. 3, see Activation MBMS Context Request, paragraph 0041, lines 1-12) and transmitting a response to the packet flow context request (fig. 3, see Join Response and MNMS Context Creation).

**Regarding claim 28, 33**, Alakoski '928 discloses the method, wherein transferred data of the multicast/broadcast multimedia service is identified on the basis of said packet flow identifier (fig. 3 to fig. 4, see MBMS creation and Activation based service attributes (service area for each stream, packet filter and target QoS).

Alakoski '928 from the same field of endeavor discloses all the claimed limitation with the exception of being silent with respect to claimed features: **regarding claims 22, 29**, the Gb interface.

**Regarding claim 24**, the method, wherein terminals in said group of terminals belong to a same multicast group.

However, Casati '232 from the same field of endeavor discloses the above claimed features: **regarding claims 22, 29**, the Gb interface (fig. 1, Gb interface connecting the SGSN node to the base station subsystem which is used for signaling and data transfer, paragraphs 0016, 0024-0026, see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038).

**Regarding claim 24**, the method, wherein terminals in said group of terminals (fig. 1, Terminal Equipments/Mobile Terminals) belong to a same multicast group see, creation of PDD context to signal that a user wishes to join a multicast group paragraphs 0027-0028, 0038).

In view of the above, having the method and system for providing multicast/broadcast services of Alakoski '928 and the method of sending a multicast message using PDP context of Casati '232, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Alakoski '928 by incorporating the teaching features of Casati '232 in order to provide establishment of multicast /broadcast services to a plurality of mobile stations over the Gb interface as suggested in paragraph 0004 for motivation.

13. **Claims 27, 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Alakoski et al (US 2004/0073928 A1) in view of Casati et al (US 2003/0039232 A1) as applied to claim 22, 29 above, and further in view of Gilchrist et al (US 7,042,855 B1).

Alakoski '928 and Casati '232 disclose all the claimed limitation with the exception of being silent with respect to claimed features: further comprising deleting the created packet flow context for said multicast/broadcast multimedia service or group of terminals identified by said packet flow identifier, wherein said deletion comprises receiving a packet flow context request including the packet flow identifier and transmitting a response to the packet flow context request.

However, Gilchrist '855 from the same field of endeavor discloses the above claimed features: deleting the created packet flow context for said multicast/broadcast multimedia service or group of terminals identified by said packet flow identifier (see, "deleting a mobile station PDP context at SGSN node", col. 5, lines 34-47), wherein said deletion comprises receiving a packet flow context request including the packet flow identifier and transmitting a response to the packet flow context request (see, "modify context message" and "modify Ack message response", col. 5, lines 34-47).

In view of the above, the method and system for providing multicast/broadcast services of Alakoski '928 and the method of sending a multicast message using PDP context of Casati '232, and the method for routing data from a service request in a communication system of Gilchrist '855, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Alakoski '928 with Casati '232 by incorporating the teaching features of Gilchrist '855 in order to

provide modification of the PDP context when the mobile station changes to SGSN as suggested in col. 5, lines 6-14 for motivation.

Regarding claim 32, Please see the Examiner comments with respect to claim 29 as discusses above.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heller et al (US 6, 88,807 B2) and Oyama et al (US 2002/0068545 A1).

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/  
Examiner, Art Unit 2616

/Kwang B. Yao/  
Supervisory Patent Examiner, Art Unit 2616